

5

## What is claimed is:

- A method for maintaining hydration of an aqueous-based polymer composition comprising admixing said aqueous-based polymer composition and from 0.01 to 50 percent by weight of one or more hydroxy compounds selected from the group consisting of hydroxyalkyl ureas, hydroxyalkyl amides, and mixtures thereof.
- The method of claim 1 wherein said aqueous-based polymer composition comprises admixing from 1 to 10 percent by weight of one or more hydroxy compounds.
  - The method of claim 1 wherein said hydroxy compound comprises a (hydroxyalkyl)urea, β-hydroxyalkylamide, or combinations thereof.
    - 4. The method of claim 3 wherein
      - a) said (hydroxyalkyl)urea has the structure

$$R^3$$
 $NCN$ 
 $R^4$ 
 $R^4$ 
 $R^2$ 

20

15

wherein

25

 $R^2$  is H or  $R^5$ ,  $R^3$  is H or  $R^5$ , and  $R^4$  is H,  $R^1$ , or  $R^5$ , wherein

5

15

25

30

35

10 
$$R^8 R^9 R^8 R^9 R^{10}$$
  
 $| | | | |$   
 $R^7$  is H, CH<sub>2</sub>OH, CHCHOH, CHCHCHOH or C<sub>1</sub>-C<sub>4</sub> alkyl,

wherein R<sup>8</sup> is H, methyl or ethyl, R<sup>9</sup> is H, methyl or ethyl, and R<sup>10</sup> is H, methyl or ethyl; and

b) said  $\beta$ -hydroxyalkylamide has the structure

wherein A is a bond, a monovalent or polyvalent organic radical derived from a saturated or unsaturated alkyl containing from 1 to 60 carbon atoms, aryl, tri-lower alkyleneamino or an ethylenically unsaturated radical; R<sup>11</sup> is selected from the group consisting of hydrogen, lower alkyl having 1 to 5 carbon atoms, and hydroxyalkyl having from 1 to 5 carbon atoms; R<sup>12</sup> and R<sup>13</sup> are independently selected from the group consisting of hydrogen, straight or branched chain lower alkyl having from 1 to 5 carbon atoms, and one of the R<sup>12</sup> and R<sup>13</sup> radicals joined together with the carbon atoms to which they are attached to form a cycloalkyl; n is an integer of 1 or 2 and n' is an integer of 0 to 2; n being 2 when n' is 0.

5. The method of Claim 2 wherein said hydroxy compound is selected from the group consisting of N,N-bis(2-hydroxyethyl)urea, tetrakis(2-

hydroxyethyl)urea, tris(2-hydroxyethyl)urea, N,N'-bis(2-hydroxyethyl)urea, N,N'-bis(3-hydroxypropyl)urea, N,N'-bis(4-hydroxybutyl)urea, 2-urea-2-ethyl-1,3-propanediol, N-hydroxyethylurea, N-methyl-D-glocourea, and combinations thereof.

5

10

15

- 6. The method according to Claim 2 wherein said β-hydroxyalkylamide is selected from the group consisting of bis[N,N-di(beta-hydroxyethyl)] adipamide, bis[N,N-di(beta-hydroxypropyl)] succinamide, N-2-hydroxyethylurea, bis[N,N-di(beta-hydroxyethyl)] azelamide, bis[N-N-di(beta-hydroxypropyl)] adipamide, and bis[N-methyl-N-(beta-hydroxyethyl)] oxamide.
- 7. The method of claim 1 wherein said aqueous polymer composition comprises an emulsion polymer.
- 8. The method of claim 1 wherein said aqueous polymer composition comprises a solution polymer.
  - The method of claim 1 wherein said aqueous polymer composition comprises a polymer dispersion.
  - The method of claim 9, wherein said polymer dispersion comprises a natural or synthetic polymer.
- 20 11. The method of claim 10, wherein said natural polymer is a starch or modified starch.
  - 12. The method of claim 1 wherein said aqueous-based polymer composition comprises a gel, a cream, or a lotion.
  - 13. A method of maintaining hydration of a substrate comprising:
- a) admixing an aqueous-based polymer composition and from 1 to 10 percent by weight of one or more hydroxy compounds selected from the group consisting of hydroxyalkyl ureas, hydroxyalkyl amides, and mixtures thereof, to form an aqueous-based polymer formulation;

- b) applying said aqueous-based polymer composition to a substrate to maintain hydration of the substrate.
- 14. The method of claim 13, wherein said substrate is selected from the group consisting of a non-woven, a fabric, a sponge, a towel, a mop head, skin or hair.
- 15. The method of claim 13, wherein said polymer formulation further comprises from 0.1 to 75 percent by weight of one or more adjuvants, based on total weight of the aqueous composition.

10

5